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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,784	06/04/2002	Tillmann Korner	VO10226	9602

7590 07/23/2003

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EXAMINER

LEWIS, TISHA D

ART UNIT

PAPER NUMBER

3681

DATE MAILED: 07/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,784

Applicant(s)

KORNER ET AL

Examiner

TISHA D. LEWIS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-20 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

The following is a first action on the merits of application serial no. 10/070,784, filed on June 4, 2002.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statements filed on March 12, 2002 and September 23, 2002 have been acknowledged.

Preliminary Amendment

The preliminary amendment filed on March 12, 2002 has been entered.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "5" for the transmission unit/housing. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, bar (14), cylindrical gear, cylindrical gear pair and hydrodynamic transmission must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because in line 1 "The invention relates to" is an implied phrase and the entire abstract is currently over 150 words, a new abstract should be submitted. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

-The specification is lacking the headings to introduce each section within the specification (i.e., Background of the invention, Description of the drawings, etc.), see MPEP 608.01 (c), (d), (f), and (g).

Appropriate correction is required.

Claim Objections

Claims 1, 8 and 18-20 are objected to because of the following informalities:

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-In the claim 1, line 9, "element" should be changed to --unit--.

-In the claim 1, line 17, "the housing wall" should be changed to --a housing wall--.

-In the claim 8, line 3, "such that" should be deleted for completion of sentence to be clear.

-In the claim 8, line 9, "the transmission output gear" should be changed to --the transmission output shaft--.

-In the claims 18-20, line 1, "and" should be changed to --an--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4-7, 15, 16, 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 2, it is unclear as to what the "cylindrical gear pair" is pertaining to.

As to claims 4 and 16, it is unclear as to what driving element is in a radial direction relative to the transmission axle.

As to claim 5, line 4, it is unclear as to what "it" is pertaining to.

Claims 6 and 17 recites the limitation "the epicyclic gear train and the annulus" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim, (limitations not introduced in claim 1 from which claim 4 depends from).

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As to claim 6, lines 6 and 7, it is unclear as to what the "elongation" is on the annulus.

As to claim 7, it is unclear as to what the "cylindrical gear" is pertaining to.

Claims 18-20 recites the limitation "the epicyclic gear train" in line 3. There is insufficient antecedent basis for this limitation in the claim, (limitation not introduced in claim 1 from which claims 3 and 4 depend from).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, 10, 11, 12 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Eichinger ('262). As to claims 1 and 11, Eichinger discloses a drive assembly having an input shaft (via 2a), an output shaft (via 8), a planetary transmission (via 21) between the input and output shaft and connected to an angular drive (via 27), the angular drive having a first bevel gear (27) and a second bevel gear (28) connected to the output shaft indirectly through bearings,

a housing covering the planetary transmission is connected to a housing covering the angular drive,

an element of the planetary transmission (24) is the output of the planetary transmission and is connected to the first bevel gear (27) by a solid connection (shaft 25, housing 26) in which the first bevel gear and element are next to each other, and

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the planetary transmission has a gear fixed (22) to the housing wall to restrict axial forces on the housing.

As to claim 2, Eichinger discloses the planetary transmission having an annulus (22), a sun gear (21), pinion gears (23) and a carrier (bar) (24) in which the carrier is the output of the planetary transmission.

As to claims 3, 4, 15 and 16, Eichinger discloses the connection element (25) positioned in an axial direction to the transmission input and the connection (26) positioned in a radial direction to the transmission input.

As to claims 7 and 18-20, Eichinger discloses the planetary transmission having the output (24) with a sun gear (21) or a carrier (bar).

As to claim 10, Eichinger discloses a fluid coupling (10) on the input side of the planetary transmission.

As to claims 12 and 14, Eichinger discloses a straight tooth connection between the first and second bevel gears wherein the teeth seem to be the same height/ length.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eichinger in view of Chen et al ('918). Eichinger discloses a toothing connection

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between first and second bevel gears of an angular drive, but the connection is straight not diagonal.

Chen et al discloses a transmission unit having an angular drive using first and second bevel gears (Figures 3 or 4) with diagonal tooth connections between.

It would have been an obvious matter of design choice to modify Eichinger by having the first and second bevel gears connect diagonally in view of Chen et al since applicant has not disclosed that having the connection be straight or diagonal solves any stated problem or is for any particular purpose and it appears that the bevel gears will perform the same with a straight or diagonal tooth connection.

Allowable Subject Matter

Claims 5, 6 and 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose or render obvious a motivation to provide for:

-(As to claim 8) a transmission unit having an angular drive with first and second bevel gears partially encompassed in a transmission housing component wherein the

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housing component can be variably positioned in different angles according to angles of the transmission output shaft.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Parsons ('531), McCarty ('987), Stone et al ('387), Fuehrer et al ('970), Yano et al ('687), Hawlas et al ('718), Mansson et al ('863), Legrand ('513), Pollard ('729) and Pendleton ('681) are all cited as having angular drives wherein a transmission unit is combined to drive an input or output.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TISHA D. LEWIS whose telephone number is 703-305-0921. The examiner can normally be reached on M-Thur 8 AM TO 3 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES A. MARMOR can be reached on 703-308-0830. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

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Tisha D Lewis
Patent Examiner
Au 3681 7-21-03